

Memorandum

Date: November 30, 2021

To: Stephanie Fong
Acting Regional Manager
Bay Delta Region

From: James White
Environmental Scientist
Bay Delta Region

Subject: 2021 USFWS Delta Smelt Recovery Index - recovery criteria not met

Information from the Department's September and October Fall Midwater Trawl (<https://wildlife.ca.gov/Conservation/Delta/Fall-Midwater-Trawl>) surveys is used each year to determine if USFWS Delta Smelt Recovery Index abundance criteria and distribution criteria have been met. The 2021 September (Sept. 1-17) and October (Oct. 4-21) Fall Midwater Trawl surveys have been completed. *This memo briefly describes that the abundance criteria and distributional criteria have not been met.*

The 1995 USFWS Sacramento-San Joaquin Delta Native Fishes Recovery Plan (U.S. Fish and Wildlife Service 1995) states that recovery of Delta Smelt (*Hypomesus transpacificus*) requires the satisfaction of these abundance criteria: (1) the 2-year average abundance index must not fall below 84 and (2) the abundance index meets or exceeds 239 in 2 of 5 consecutive years. *The abundance criteria have not been met because the 2-year average abundance index is 0.0 and during the last five years the index has never exceeded 239 (Table 1).*

The Native Fishes Recovery Plan also states that recovery of Delta Smelt requires the satisfaction of these distributional criteria: (1) Delta Smelt must be present in 2 out of the 11 stations in the North Central Delta (Zone A), 5 of the 9 stations in Sacramento River and Montezuma Slough (Zones B1 and B2), and 6 of the 15 stations in Suisun Bay (Zone C) and (2) distributional criteria must be met in all zones 2 of 5 consecutive years, in at least 2 zones in 1 of the remaining 3 years, and in at least 1 zone in the remaining 2 years (*see Fig. 2.7, U.S. Fish and Wildlife Service 1995*). *The distributional criteria have not been met because no Delta Smelt have been caught during September or October Fall Midwater Trawl surveys in 2021 (Table 1).*

Lastly, the Plan states that Delta Smelt will be considered for delisting when abundance criteria and distributional criteria have been met consecutively over a 5-year period that includes 2 consecutive years of extreme outflows, one of which must be dry or critical (Sacramento River Indices ≤ 6.0), the other of which may be wet (Sacramento River Indices ≥ 11.2). For convenience, Table 1 includes Water Year classifications (California Department of Water Resources).

Table 1. Distribution and abundance of Delta Smelt collected from the September and October Fall Midwater Trawl surveys from 2015 - 2021. Recovery plan abundance is summed catch calculated from a subset of Fall Midwater Trawl survey stations, thus it will not match the routine FMWT indices reported for the same months.

Year	Catch at stations in North Central Delta	Catch at stations in Sacramento River and Montezuma Slough	Catch at stations in Suisun Bay	Recovery Index	Running 2-year Average	Water-Year Type
2015	0	1	0	2	3.5	Critical
2016	0	0	0	0	1.0	Below Normal
2017	0	1	0	1	0.5	Wet
2018	0	0	0	0	0.5	Below Normal
2019	0	0	0	0	0.0	Wet
2020	0	0	0	0	0.0	Dry
2021	0	0	0	0	0.0	Critical

References

California Department of Water Resources. Chronological Reconstructed Sacramento and San Joaquin Valley Water Year Hydrologic Classification Indices.

<https://cdec.water.ca.gov/reportapp/javareports?name=WSIHIST>.

U.S. Fish and Wildlife Service. 1995. Sacramento-San Joaquin Delta Native Fishes Recovery Plan. Portland, Oregon: U.S. Fish and Wildlife Service.